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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/672,946	09/29/2000	Mitsuaki Oshima	2000_1328	7022

7590 09/16/2002
Wenderoth Lind & Ponack LLP
2033 K Street N W Suite 800
Washington, DC 20006

EXAMINER

LE, AMANDA T

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 09/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/672,946	Applicant(s) OSHIMA ET AL.	
	Examiner Amanda T Le	Art Unit 2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 04/11/01.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 13-18 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 13-18 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☒ Certified copies of the priority documents have been received in Application No. 08/240,521.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1,5,6,7.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____

Drawings

1. Although Applicants have requested to transfer the drawings from the parent application, similar requests have been made in all the other co-pending applications. The drawings will be transferred only to the reissue application serial no. 09/244.037. Formal drawings will be required for this Application.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 13, 14, 16, 17 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claimed limitations of "an allocator operable to allocate code points along a uniaxial modulation coordinate system, and a filter, having a plurality of coefficients which are a series of impulse responses defined by plotting time base responses to the VSB modulation signal...along the uniaxial modulation coordination system" is not described expressively in the specification. The support for the claimed limitations in the specification (col. 48, lines 31-44, and 31-44, col. 52, lines 56-65, and Figs. 61, 62, 159), as indicated by the Applicants, simply discloses "a modulator" and "a VSB filter".

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible

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harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 13-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 5,600,672 in view of Bryan et al.

The patented claim discloses all the claimed limitations, except for "the first data stream has data for demodulation including information representing the number of signal points of the second stream in a signal space, the number of signal points of the first data stream is equal to or less than 4". Bryan et al discloses a system for transmitting digital television signal wherein one of the data stream, a 4 QAM signal, indicates the number of signal points of the other data stream (Fig. 2, 5, col. 7, lines 36-42, col. 8, lines 38-43). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system described in the patented claim using Bryan et al's teachings for the purpose of enabling the receiver the detect the second data stream quickly.

4. Claims 15 and 18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2 and 5 of U.S. Patent No. 6,256,357. Although the conflicting claims are not identical, they are not patentably distinct from each

other. Omission of "a Fast Fourier transforming" means or step whose function is not needed for a particular design would have been obvious to one of ordinary skill in the art at the time of the invention. Further, mapping the transmitted signal using a constellation having a specific signal points would have been within the level of one skilled in the art at the time of the invention.

5. Claims 13-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-18 of copending Application No. 09/672,947, 09/668,068, 09/666,012 in view of Bryan et al.

The patented claim discloses all the claimed limitations, except for "the first data stream has data for demodulation including information representing the number of signal points of the second stream in a signal space, the number of signal points of the first data stream is equal to or less than 4". Bryan et al discloses a system for transmitting digital television signal wherein one of the data stream, a 4 QAM signal, indicates the number of signal points of the other data stream (Fig. 2, 5, col. 7, lines 36-42, col. 8, lines 38-43). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system described in the patented claim using Bryan et al's teachings for the purpose of enabling the receiver the detect the second data stream quickly.

This is a provisional obviousness-type double patenting rejection.

6. Claims 15-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-18 of co pending Application No. 09/669,916, 09/667,525, 09/666,012, 09/672,948. Although the conflicting

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claims are not identical, they are not patentably distinct from each other. It would have been obvious to one of ordinary skill in the art at the time of the invention to select a constellation having a particular number of signal points for mapping the transmitting signals, depending on the specific design requirements.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Amanda Le** whose telephone number is **(703)305-4769**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Stephen Chin**, can be reached at (703)305-4714.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



**AMANDA T. LE
PRIMARY EXAMINER**